

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/004864 A1

(51) International Patent Classification⁷: **A61K 31/4184**,
C07D 401/12, **A61K 31/4439**, **A61P 35/00**

Taunusstrasse 10, 64289 Darmstadt (DE). ZENKE, Frank
[DE/DE]; Schulzengasse 7, 64291 Darmstadt (DE).

(21) International Application Number:
PCT/EP2004/006419

(74) Common Representative: **MERCK PATENT GMBH**;
Frankfurter Strasse 250, 64293 Darmstadt (DE).

(22) International Filing Date: 15 June 2004 (15.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03015582.4 11 July 2003 (11.07.2003) EP

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(71) Applicant (for all designated States except US): **MERCK
PATENT GMBH** [DE/DE]; Frankfurter Strasse 250,
64293 Darmstadt (DE).

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BUCHSTALLER**,
Hans-Peter [AT/DE]; Heinrichstrasse 54, 64331 Weiter-
stadt (DE). **FINSINGER**, Dirk [DE/DE]; Im Fiedlersee 5,
64291 Darmstadt (DE). **WIESNER**, Matthias [DE/DE];
Beethovenring 10, 64342 Seeheim-Jugenheim (DE).
BURGDORF, Lars [DE/DE]; Gabelsbergerstrasse 21,
60389 Frankfurt am Main (DE). **AMENDT**, Christiane
[DE/DE]; Barkhausstrasse 22, 64289 Darmstadt (DE).
GRELL, Matthias [DE/DE]; Lindenweg 44, 64291
Darmstadt (DE). **SIRRENBURG**, Christian [DE/DE];

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **BENZIMIDAZOLE DERIVATIVES AS RAF KINASE INHIBITORS**

(57) Abstract: The present invention relates to benzimidazole derivatives of formula I, the use of the compounds of formula I as inhibitors of one or more kinases, the use of the compounds of formula I for the manufacture of a pharmaceutical composition and a method of treatment, comprising administering said pharmaceutical composition to a patient. Accordingly, the compound of Formula I or a pharmaceutically acceptable salt thereof is administered for the treatment of diseases mediated by one or more kinase pathways, preferably by the raf kinase pathway, especially cancers, [FORMULA]

WO 2005/004864 A1